## CALIFORNIA INSTITUTE OF TECHNOLOGY

PASADENA, CALIFORNIA 91109

DIVISION OF BIOLOGY

April 11, 1973

To the Members of the National Academy of Sciences:

The actions of the present administration in regard to support of students have created a crisis for biomedical science. Training grants and fellowship support are being totally eliminated. This will ultimately mean the termination of all federal support for graduate students and post-doctoral fellows, as well as some faculty who have been partially supported by the training grants. This will be the first time since 1948 that some federal support for biomedical postdoctoral fellows is not available.

The result of the abolition of the NIH training grant program will be a sharp reduction in the number of graduate students. For example, at Caltech, the current plan is to taper the number of Biology Division graduate students to less than half the present number (the same level as that in 1957). Students without support will have to obtain other sources of income which may, of course, reduce the quality of their training. The effect will not be to improve the quality of the students—probably the reverse.

Private sources of funds capable of supporting the cost of graduate education do not exist. The clear result of the administration policy will be to very seriously reduce our basic research potential and slow the rate of advance of biomedical knowledge for many years.

The elimination of support for postdoctoral students will have an even greater effect—this may indeed by the most critical aspect of the fund reductions. These extra years of training and experience are now very necessary. A significant fraction of the active front—line research in the United States is now actually carried out by fellowship—supported postdoctoral personnel.

The expenditure in support of postdoctoral students is actually relatively small and the budgetary reduction obtained by its elimination is minor in comparison with the very grave damage to biomedical science which will follow if this policy is implemented.

I suppose we all feel that it is not desirable to reduce the future number of trained scientists. Even if it were desirable, as the administration argues, the proposed policy is both brutal and wasteful. It is wasteful because qualified students are being turned aside near the completion of their training. It is brutal because students with every expectation of completing their training with support through their postdoctoral years are suddenly forced to stop in order to find immediate employment. Only a

fraction will survive and remain in basic research. The argument (applicable to medical students) that advanced training leads to high future income obviously does not hold for research scientists.

I feel that the academy must act in the strongest possible way to protest the present situation and bring about public recognition of the certain effects of the administration's reduction of support for graduate and postdoctoral education. The situation is sufficiently serious to require strong action! Certainly the academy should pass a resolution (such as that appended) directly aimed at these questions at the spring meeting, and bring it strongly to the attention of the administration in its classical role as advisor to the Government. Beyond that, individual members should apply as much pressure as they can to their individual congressmen. And a very broad and general attempt should be made to inform Congress of the seriousness of this issue, not only in biomedical areas, but in other areas of research.

If the academy permits this occasion to pass by without making an effective protest and a real effort to reverse government policies and recover the previous status of support of science, then its role as advisor will be very seriously weakened and diminished in the future.

RJB:ek

RESOLUTION ON THE SUPPORT OF SCIENTIFIC EDUCATION

## Preamble:

Actions and statements of the administration indicate that federal support of predoctoral and postdoctoral students in basic biomedical science will be totally eliminated. Private sources of funds capable of supporting predoctoral and postdoctoral education do not exist. The effect of this policy would be to reduce strongly the number of students and terminate the education of many students. This will reduce future basic research potential and slow the rate of advance of biomedical knowledge for many years.

Therefore, be it resolved that all possible pressure be applied to the Congress and the administration to reverse this policy and to continue at the previous level the support of predoctoral and postdoctoral students, including the funding of training grants and predoctoral and postdoctoral fellowships.

This resolution, and an explanatory document, to be individually circulated by the National Academy of Sciences, to all members of the House of Representatives and the United States Senate, and the upper ranks of the Administration.